

METHOD OF AND APPARATUS FOR DIRECTIONAL DRILLING

ABSTRACT OF THE DISCLOSURE

A method of and system for directional drilling reduces the friction between the drill string and the well bore. A downhole drilling motor is connected to a drilling rig at the surface by a drill string. The drilling motor is oriented at a selected tool face angle. The drill string is rotated at the surface in a first direction until a first torque magnitude is reached without changing the tool face angle. The drill string is then rotated in the opposite direction until a second torque magnitude is reached, again without changing the tool face angle. The drill string is rotated back and forth between the first and second torque magnitudes. Pressure inside the drill string is measured, and the first and second torque magnitudes are adjusted in response to changes in the pressure.